

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A full duplex transceiver for transmitting and receiving communication signals, the transceiver comprising:  
1 to N sample and hold circuits, each sample and hold circuit receiving a first signal comprising a far-end signal and an echo signal, and receiving a replica signal, wherein each of the N sample and hold circuits receives one of N clock signals, and wherein a phase of each of the N clock signals relative to the other (N-1) clock signals is dependent on the value of N; and  
a plurality of subtraction circuits, each subtraction circuit receiving an output of at least one of the sample and hold circuits, each subtraction circuit subtracting at least a fraction of a sampled and hold replica signal from at least a fraction of the output of the at least one of the sample and hold circuits.
2. (Currently amended) The full duplex transceiver of claim 1, wherein each sample and hold circuit additionally ~~receives a replica signal and generates a corresponding sampled and hold replica signal, and each subtraction circuit receives a sample and hold replica signal from an output of a corresponding sample and hold circuit.~~
3. (Currently Amended) The full duplex transceiver of claim 1, wherein each ~~subtraction circuit receives at least one of N replica signals, the~~ sampled and hold

replica signals ~~having~~ has a replica signal frequency that is lower than a signal frequency of the first signal.

4. (Original) The full duplex transceiver of claim 1, wherein the output of the at least one sample and hold circuits is subjected to analog processing before being received by the subtraction circuit.
5. (Original) The full duplex transceiver of claim 1, wherein the sampled and hold replica signal is subjected to analog processing before being received by the subtraction circuit.
6. (Canceled) The full duplex transceiver of claim 1, wherein the first signal comprises the far-end signal, and an echo signal.
7. (Original) The full duplex transceiver of claim 1, wherein the first signal comprises the far-end signal, and cross-talk signals.
8. (Original) The full duplex transceiver of claim 1, wherein the ith sample and hold circuit receives an ith clock signal.
9. (Original) The full duplex transceiver of claim 1, wherein each subtraction circuit generates an analog output, a combination of the analog outputs of the subtraction circuits generating a representation of the far end signal.
10. (Original) The full duplex transceiver of claim 1, wherein the ith subtraction circuit receives the ith clock signal.
11. (Original) The full duplex transceiver of claim 1, wherein the subtraction circuits are continuous time circuits.

12. (Original) The full duplex transceiver of claim 1, wherein output signals of the subtraction circuits are received by analog to digital converters (ADC)s, the ADCs generating a digital output representing the far end signal.
13. (Original) The full duplex transceiver of claim 1, wherein an *ith* ADC receives the *ith* clock signal.
14. (Original) The full duplex transceiver of claim 1, further comprising a clock generation circuitry, the clock generation circuitry generating *N* clock signals, wherein a phase of the clock signals are spaced apart from each other by approximately  $(360/N)$  degrees.
15. (Original) The full duplex transceiver of claim 1, wherein the first signal further includes cross-talk signals.
16. (Currently amended) A method of receiving a first signal with a full duplex transceiver, the first signal comprising a far end signal, the method comprising:
  - sampling and holding *N* versions of the first signal with *N* clock signals,
  - and wherein a phase of each of the *N* clock signals relative to the other (*N*-1) clock signals is dependent on the value of *N*;
  - generating sampling and holding *N* versions of a replica signals with the *N* clock signals;
  - subtracting at least a fraction of each of the *N* sample and hold versions of the replica signals from at least a fraction of the *N* sample and hold versions of the first signal generating *N* versions of the far end signal.

17. (Original) The method of receiving a far end signal of claim 16, wherein the first signal comprises the far-end signal and an echo signal.
18. (Original) The method of receiving a far end signal of claim 16, wherein the first signal comprises the far-end signal and cross-talk signals.
19. (Original) The method of receiving a far end signal of claim 16, wherein the first signal comprises the far-end signal, an echo signal and cross-talk signals.
20. (Original) The method of receiving a far end signal of claim 16, further comprising combining the versions of the far end signal.
21. (Original) The method of receiving a far end signal of claim 16, wherein the sampling and holding is driven by a clock frequency of  $F_s/N$ , where  $F_s$  is a frequency greater than twice the frequency of the highest frequency component of the far end signal.
22. (Original) The method of receiving a far end signal of claim 16, further comprising: programmably controlling an amplitude of the far end signals.
23. (Original) The method of receiving a far end signal of claim 16, further comprising: generating digital samples of analog versions of the far end signal.
24. (Original) The method of receiving a far end signal of claim 16, wherein the  $i$ th sample and hold circuit receives an  $i$ th clock signal.
25. (Original) The method of receiving a far end signal of claim 16, wherein each subtraction circuit generates an analog output, a combination of the analog outputs of the subtraction circuits generating a representation of the far end signal.

26. (Original) The method of receiving a far end signal of claim 16, wherein the *i*th subtraction circuit receives an *i*th clock signal.
27. (Original) The method of receiving a far end signal of claim 16, wherein the subtraction circuits are continuous time circuits.
28. (Original) The method of receiving a far end signal of claim 16, wherein output signals of the subtraction circuits are received by analog to digital converters (ADC)s, the ADCs generating a digital output representing the far end signal.
29. (Original) The method of receiving a far end signal of claim 16, wherein an *i*th ADC receives an *i*th clock signal.
30. (Original) The method of receiving a far end signal of claim 16, further comprising generating *N* clock signals, wherein a phase of the clock signals are spaced apart from each other by approximately  $(360/N)$  degrees.
31. (Currently amended) A network line card, the network line card comprising a full duplex transceiver, the full duplex transceiver comprising:
- 1 to *N* sample and hold circuits, each sample and hold circuit receiving a first signal comprising a far-end signal and an echo signal, and receiving a replica signal, wherein each of the *N* sample and hold circuits receives one of *N* clock signals, and wherein a phase of each of the *N* clock signals relative to the other (*N*-1) clock signals is dependent on the value of *N*; and
- a plurality of subtraction circuits, each subtraction circuit receiving an output of at least one of the sample and hold circuits, each subtraction circuit

subtracting at least a fraction of a sample and hold replica signal from at least a fraction of the output of the at least one of the sample and hold circuits.

32. (Cancel) A server comprising a full duplex transceiver, the full duplex transceiver comprising:

1 to N sample and hold circuits, each sample and hold circuit receiving a first signal comprising a far-end signal; and

a plurality of subtraction circuits, each subtraction circuit receiving an output of at least one of the sample and hold circuits, each subtraction circuit subtracting at least a fraction of a replica signal from at least a fraction of the output of the at least one of the sample and hold circuits.

33. (Cancel) LAN system comprising full duplex transceiver, the full duplex transceiver comprising:

1 to N sample and hold circuits, each sample and hold circuit receiving a first signal comprising a far-end signal; and

a plurality of subtraction circuits, each subtraction circuit receiving an output of at least one of the sample and hold circuits, each subtraction circuit subtracting at least a fraction of a replica signal from at least a fraction of the output of the at least one of the sample and hold circuits.